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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Ai SATOYAMA et al.

Serial No.: 10/649,766

Filed: August 28, 2003

For: STORAGE SYSTEM

**PETITION TO MAKE SPECIAL
UNDER 37 CFR 1.102(d) and MPEP. §708.02, VIII**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

December 22, 2004

Sir:

1. Petition

Applicants hereby petition to make this application **Special**, in accordance with 37 CFR §1.102(d) and MPEP 708.02, VIII. The present invention is a new application filed in the United States Patent and Trademark Office on August 28, 2003 and as such has not received any examination by the Examiner.

2. Claims

Applicants hereby represent that all the claims in the present application are directed to a single invention. If upon examination it is determined that all the claims presented are not directed to a single invention, Applicants will make an election without traverse as a prerequisite to the granting of special status.

3. Search

Applicants hereby submit that a pre-examination search has been made by a professional searcher, (a copy of which is attached), in the following classes and subclasses:

<u>Class</u>	<u>Subclass</u>
707	204, 205
709	225, 226, 238
711	4, 111, 161
714	5

4. Copy of References

A listing of all references found by the professional searcher is provided on a Form PTO-1449 and copies of the references and the Form PTO-1449 are submitted as part of an Information Disclosure Statement (IDS) filed on even date.

5. Detailed Discussion of the References and Distinctions Between the References and the Claims

Below is a discussion of the references uncovered by the search and cited in the IDS filed on even date that appear to be most closely related to the subject matter encompassed by the claims of the present application, and which discussion particularly points out how Applicants' claimed subject matter is distinguishable over those references. All other references uncovered by the search and cited in the IDS filed on even date are **not** treated in detail herein.

a. Detailed Discussion of the References

U.S. Patent No. 6,643,667 B1 (Arai et al.), assigned to Hitachi, Ltd., is entitled System and Method for Replicating Data. Disclosed is a method for automatically selecting a secondary volume. When Auto is selected, the SVP selects the secondary volume from the set of reserved volumes. Code for specifying a relationship between a first logical volume and a second logical volume can be part of a computer program product (see column 2 lines 37-42, 11 lines 2-5).

U.S. Patent No. 6,763,436 B2 (Gabber et al.), assigned to Lucent Technologies Inc., is entitled Redundant Data Storage and Data Storage Recovery System. Disclosed is a host element 101 responsible for replicating data between storage devices 105-1-105-N connected to storage elements 102-1-102-N. Each of the storage devices 105 can be connected to its respective storage elements 102 using a plurality of interfaces such as FC or ATA (see figure 1, column 4 lines 1-2 and lines 19-23).

U.S. Patent Publication No. 2001/0034795 A1 (Moulton et al.) is entitled System and Method for Intelligent, Globally Distributed Network Storage. Disclosed is a mechanism to strategically select the storage location or locations suitable for a specific task based on the varying characteristics associated with these locations. Data storage management processes select one or more of the storage nodes to serve a data storage request based at least in part upon the particular contexts associated with each of the storage nodes (see paragraphs 17 and 27).

U.S. Patent Publication No. 2003/0204597 A1 (Arakawa et al.), assigned to Hitachi, Ltd., is entitled Storage System having Virtualized Resource. Disclosed is a method of selecting a secondary volume for replication of a virtual volume, where a server 200 may present information about logical volume 500 and the storage area, which are not used in storage systems 100 other than the primary storage 100. The server 200 may provide the host 300 with the secondary volume specified by the user, or the like, using a method for creating a new virtual volume 500. Further, automatically providing a secondary volume by server 200 enables a reduction in work required for selecting secondary volume by the user or system administrator (see paragraphs 178 and 179).

U.S. Patent Publication No. 2004/0024796 A1 (Takeda et al.), assigned to Hitachi, Ltd., is entitled Data Storage System. Disclosed is a method for calculating reliability or performance requirements, in relation to each file specified by a storage request. After calculation, a storage destination volume may be selected in accordance with the calculated storage requirements and performance characteristics of each volume, and file may be stored in selected storage destination volume (see paragraphs 13 and 14).

U.S. Patent Publication No. 2004/0181641 A1 (Nguyen et al.), assigned to International Business Machines Corporation, is entitled System, Method and Computer Program Product to Automatically Select Target Volumes for a Fast Copy to Optimize Performance and Availability. Disclosed is a method that may include automatically selecting at least one target volume for writing fast copy-related data and writing the

fast copy data to the selected at least one target volume. At least one performance-related criterion can include at least one of a response time of a target volume and busyness of target volume (see paragraphs 8 and 12)

b. Distinctions Between the References and the Claims

The present invention as recited in the claims filed are not taught or suggested by any of the above noted references whether taken individually or in combination with each other or in combination with any of the other references now of record.

The present invention as recited in the claims is directed to a storage system including a plurality of storage devices and a storage control unit for controlling the plurality of storage devices, the storage control unit including: a first interface for connection to a computer; a memory for storing a program which, when replicating data in the plurality of storage devices, is capable of selecting a destination volume considering the characteristics of the source volume; a CPU for executing the program; and a second interface for connection to the plurality of storage devices.

The above described features of the present invention, particularly a memory for storing a program which, when replicating data in the plurality of storage devices, is capable of selecting a destination volume considering the characteristics of the source volume, selecting a destination volume considering the characteristics of source and candidate destination volumes, referencing first and second sets of information in a memory in selecting a logical storage area into which the contents of a specified logical storage area constructed on a first or second group of storage devices are to be replicated, or referencing the information stored in the memory in

selecting a destination volume for a specified volume constructed on the first or second group of storage devices, are not taught or suggested by any of the references of record whether taken individually or in combination with each other.

6. Fee (37 C.F.R. 1.17(i))

The fee required by 37 C.F.R. § 1.17(i) is to be paid by:

☒ the Credit Card Payment Form (attached) for \$130.00.

☐ charging Account _____ the sum of \$130.00.

A duplicate of this petition is attached.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of Mattingly, Stanger & Malur, Deposit Account No. 50-1417 (520.43032x00).

Respectfully submitted,

MATTINGLY, STANGER & MALUR, P.C.



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FDB/sdb
Enclosures